Panasonic

Basic Operating Instructions

Digital Camera/
Lens Kit

Model No. DMC-GF2C/DMC-GF2K
DMC-GF2

Before connecting, operating or adjusting this product, please read the instructions completely.

LUMIX™ G MICRO SYSTEM

MICRO FOURTHIRDS™

SDXC™

3D

More detailed instructions on the operation of this camera are contained in "Operating Instructions for Advanced Features (PDF format)" in the supplied CD-ROM. Install it on your PC to read it.

For USA and Puerto Rico assistance, please call: 1-800-211-PANA(7262) or, contact us via the web at: http://www.panasonic.com/contactinfo

For Canadian assistance, please call: 1-800-99-LUMIX (1-800-995-8649) or send e-mail to: lumixconcierge@ca.panasonic.com

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Dear Customer,

Thank you for choosing Panasonic!

You have purchased one of the most sophisticated and reliable products on the market today. Used properly, we're sure it will bring you and your family years of enjoyment. Please take time to fill in the model and serial numbers in the space below. The serial number is on the tag located on the underside of your Camera. Be sure to **retain this manual** as your convenient Camera information source. Please note that the actual controls and components, menu items, etc. of your Digital Camera may look somewhat different from those shown in the illustrations in these Operating Instructions.

Carefully observe copyright laws.

- Recording of pre-recorded tapes or discs or other published or broadcast material for purposes other than your own private use may infringe copyright laws. Even for the purpose of private use, recording of certain material may be restricted.

Model No. _____

Serial No. _____

A lithium ion battery that is recyclable powers the product you have purchased. Please call 1-800-8-BATTERY for information on how to recycle this battery.

Information for Your Safety

WARNING:

TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK OR PRODUCT DAMAGE,

- **DO NOT EXPOSE THIS APPARATUS TO RAIN, MOISTURE, DRIPPING OR SPLASHING AND THAT NO OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHALL BE PLACED ON THE APPARATUS.**
- **USE ONLY THE RECOMMENDED ACCESSORIES.**
- **DO NOT REMOVE THE COVER (OR BACK); THERE ARE NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.**

THE SOCKET OUTLET SHALL BE INSTALLED NEAR THE EQUIPMENT AND SHALL BE EASILY ACCESSIBLE.

■ **Product identification marking**

Product	Location
Digital camera	Bottom
Battery charger	Bottom

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THE FOLLOWING APPLIES ONLY IN CANADA.

This Class B digital apparatus complies with Canadian ICES-003.

THE FOLLOWING APPLIES ONLY IN THE U.S.A.

FCC Note:
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: To assure continued compliance, follow the attached installation instructions and use only shielded interface cables with ferrite core when connecting to computer or peripheral devices.
Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Declaration of Conformity
Trade Name: Panasonic
Model No.: DMC-GF2
Responsible party: Panasonic Corporation of North America
One Panasonic Way, Secaucus, NJ 07094
Support Contact: Panasonic Consumer Electronics Company 1-800-211-PANA (7262)

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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■ About the battery pack

CAUTION
Battery pack (Lithium ion battery pack)
- Use the specified unit to recharge the battery pack.
- Do not use the battery pack with equipment other than the specified unit.
- Do not get dirt, sand, liquids, or other foreign matter on the terminals.
- Do not touch the plug terminals (+ and −) with metal objects.
- Do not disassemble, remodel, heat or throw into fire.

If any electrolyte should come into contact with your hands or clothes, wash it off thoroughly with water.
If any electrolyte should come into contact with your eyes, never rub the eyes. Rinse eyes thoroughly with water, and then consult a doctor.

CAUTION
Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

- Do not heat or expose to flame.
- Do not leave the battery(ies) in an automobile exposed to direct sunlight for a long period of time with doors and windows closed.

Warning
Risk of fire, explosion and burns. Do not disassemble, heat above 60 °C (140 °F) or incinerate.

■ About the battery charger

CAUTION!
- **DO NOT INSTALL OR PLACE THIS UNIT IN A BOOKCASE, BUILT-IN CABINET OR IN ANOTHER CONFINED SPACE. ENSURE THE UNIT IS WELL VENTILATED. TO PREVENT RISK OF ELECTRIC SHOCK OR FIRE HAZARD DUE TO OVERHEATING, ENSURE THAT CURTAINS AND ANY OTHER MATERIALS DO NOT OBSTRUCT THE VENTILATION VENTS.**
- **DO NOT OBSTRUCT THE UNIT'S VENTILATION OPENINGS WITH NEWSPAPERS, TABLECLOTHS, CURTAINS, AND SIMILAR ITEMS.**
- **DO NOT PLACE SOURCES OF NAKED FLAMES, SUCH AS LIGHTED CANDLES, ON THE UNIT.**
- **DISPOSE OF BATTERIES IN AN ENVIRONMENTALLY FRIENDLY MANNER.**

Battery charger
This battery charger operates on AC between 110 V and 240 V.
But
- In the U.S.A. and Canada, the battery charger must be connected to a 120 V AC power supply only.
- When connecting to an AC supply outside of the U.S.A. or Canada, use a plug adaptor to suit the AC outlet configuration.

- The battery charger is in the standby condition when the AC power is supplied. The primary circuit is always "live" as long as the battery charger is connected to an electrical outlet.

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■ Cautions for Use

- Do not use any other AV cables except the supplied one.
- Do not use any other USB connection cables except the supplied one.
- Always use a genuine Panasonic HDMI mini cable (RP-CDHM15, RP-CDHM30; optional). Part numbers: RP-CDHM15 (1.5 m) (5 feet), RP-CDHM30 (3.0 m) (10 feet)

Keep this unit as far away as possible from electromagnetic equipment (such as microwave ovens, TVs, video games etc.).

- If you use this unit on top of or near a TV, the pictures and/or sound on this unit may be disrupted by electromagnetic wave radiation.
- Do not use this unit near cell phones because doing so may result in noise adversely affecting the pictures and/or sound.
- Recorded data may be damaged, or pictures may be distorted, by strong magnetic fields created by speakers or large motors.
- Electromagnetic wave radiation generated by microprocessors may adversely affect this unit, disturbing the pictures and/or sound.
- If this unit is adversely affected by electromagnetic equipment and stops functioning properly, turn this unit off and remove the battery or disconnect AC adaptor (DMW-AC8PP; optional). Then reinsert the battery or reconnect AC adaptor and turn this unit on.

Do not use this unit near radio transmitters or high-voltage lines.

- If you record near radio transmitters or high-voltage lines, the recorded pictures and/or sound may be adversely affected.

-If you see this symbol-

Information on Disposal in other Countries outside the European Union

This symbol is only valid in the European Union.
If you wish to discard this product, please contact your local authorities or dealer and ask for the correct method of disposal.

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Standard Accessories

Check that all the accessories are supplied before using the camera.
Product numbers correct as of December 2010. These may be subject to change.

1 Digital Camera Body
(This is referred to as **camera body** in these operating instructions.)
2 Interchangeable Lens
"LUMIX G 14 mm/F2.5 ASPH."
(This is referred to as **lens** in these operating instructions.)
3 Lens Cap
(This is attached to the interchangeable lens at the time of purchase.)
4 Lens Rear Cap
(This is attached to the interchangeable lens at the time of purchase.)
5 Interchangeable Lens
"LUMIX G VARIO 14–42 mm/F3.5–5.6 ASPH./MEGA O.I.S."
(This is referred to as **lens** in these operating instructions.)
6 Lens Hood
7 Lens Cap
(This is attached to the interchangeable lens at the time of purchase.)
8 Lens Rear Cap
(This is attached to the interchangeable lens at the time of purchase.)
9 Battery Pack
(Indicated as **battery pack** or **battery** in the text)
Charge the battery before use.
10 Battery Charger
(Indicated as **battery charger** or **charger** in the text)
11 AV Cable
12 USB Connection Cable
13 Body Cap
(This is attached to the camera body at the time of purchase.)
14 CD-ROM
• Software:
Use it to install the software to your PC.
15 CD-ROM
• Operating Instructions
16 Hot shoe cover
(This is attached to the camera body at the time of purchase.)
17 Shoulder Strap
18 Stylus pen
19 Battery Case

• SD Memory Card, SDHC Memory Card and SDXC Memory Card are indicated as **card** in the text.
• **The card is optional.**
• Description in these operating instructions is based on the interchangeable lens (H-H014). About unavailable functions such as [STABILIZER], Direction Detection function, description in these operating instructions is based on the interchangeable lens (H-FS014042).
• For information about optional accessories, refer to the "Digital Camera Accessory System".
• If any accessories are lost, customers in the USA and Puerto Rico should contact Panasonic's parts department at 1-800-833-9626 and customers in Canada should contact 1-800-99-LUMIX (1-800-995-8649) for further information about obtaining replacement parts.

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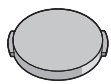
1

DMC-GF2C ✳1

2

H-H014

3



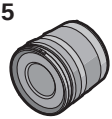
VYF3371

4

VFC4605

DMC-GF2K ✳2

5

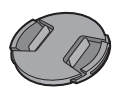


H-FS014042

6

VYC1009

7

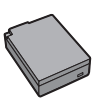


VYF3201

8

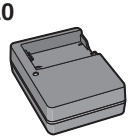
VFC4315

9



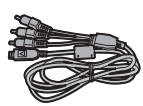
DMW-BLD10PP

10



DE-A93B

11



K1HY14YY0009

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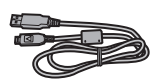

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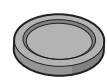


VKF4385

14

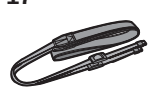
15

VFF0754

16

VKF4840

17



VFC4634

18

VGQ0C14

19

VGQ0R99

✳1 Supplied in DMC-GF2C only
✳2 Supplied in DMC-GF2K only

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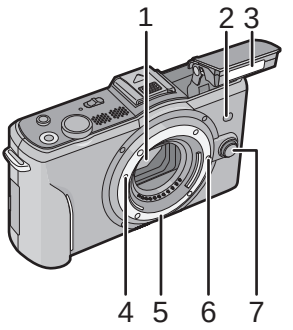
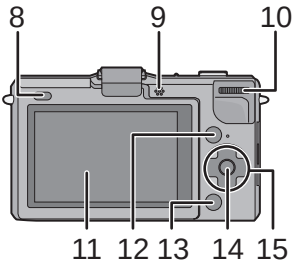
■ **Camera body**

1 Sensor
2 Self-timer indicator/
AF Assist Lamp
3 Flash
4 Lens fitting mark
5 Mount
6 Lens lock pin
7 Lens release button



8 Flash open button
9 Speaker
10 Rear dial
11 Touch panel/LCD monitor
12 Playback button
13 [Q.MENU/Fn] button/
Delete/Return button
14 [MENU/SET] button
15 Cursor buttons
▲/ISO
►/WB (White Balance)
◄/AF Mode button
▼/[DRIVE MODE] button
This button in picture record mode will allow the user to select between the following options.
Single/Burst/Auto bracket/Self-timer



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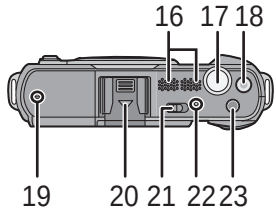
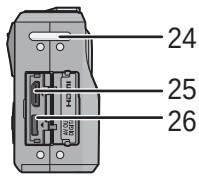
16 Stereo microphone
17 Shutter button
18 Motion picture button
19 Focus distance reference mark
20 Hot shoe cover
- Keep the Hot Shoe Cover out of reach of children to prevent swallowing.

21 Camera ON/OFF switch
22 Status indicator
23 Intelligent Auto button



24 Shoulder strap eyelet
- Be sure to attach the shoulder strap when using the camera to ensure that you will not drop it.

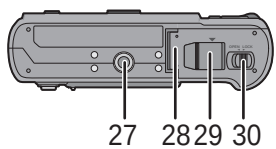
25 [HDMI] socket
26 [AV OUT/DIGITAL] socket



27 Tripod receptacle
- When you use a tripod, make sure the tripod is stable when the camera is attached to it. If the attached lens contacts the base of the tripod, use the tripod adaptor (DMW-TA1; optional).

28 Card/Battery door
29 DC coupler cover
- When using an AC adaptor, ensure that the Panasonic DC coupler (DMW-DCC9; optional) and AC adaptor (DMW-AC8PP; optional) are used.
- Always use a genuine Panasonic AC adaptor (DMW-AC8PP; optional).
- It is recommended to use a fully charged battery or AC adaptor when recording motion pictures.
- If while recording motion pictures using the AC adaptor and the power supply is cut off due to a power outage or if the AC adaptor is disconnected etc., the motion picture being recorded will not be recorded.

30 Release lever



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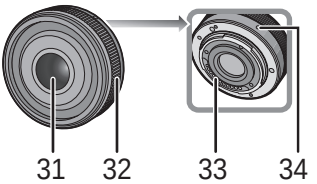
■ **Lens**

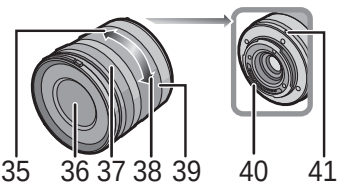
H-H014 (LUMIX G 14 mm/F2.5 ASPH.)

31 Lens surface
32 Focus ring
33 Contact point
34 Lens fitting mark



H-FS014042 (LUMIX G VARIO 14–42 mm/F3.5–5.6 ASPH./MEGA O.I.S.)

35 Tele
36 Lens surface
37 Focus ring
38 Wide
39 Zoom ring
40 Contact point
41 Lens fitting mark



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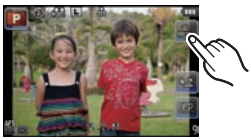
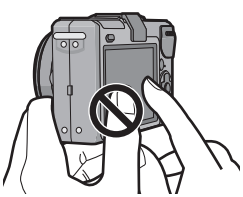
Touch Panel

This touch panel is a type that detects pressure.

Touch the screen To touch and release the touch panel.	**Drag** A movement without releasing the touch panel.
	
Use this to perform tasks such as selecting icons or images displayed on the touch panel. • When selecting features using the touch panel, be sure to touch the center of the desired icon.	This is used when performing tasks such as moving to the next image by dragging horizontally, or changing the range of the displayed image. This can also be used to perform tasks such as switching the screen by operating the slide bar.

Note



- If you use a commercially available liquid crystal protection sheet, please follow the instructions that accompany the sheet. (Some liquid crystal protection sheets may impair visibility or operability.)
- If a commercially available protection sheet is used, **a little extra pressure** may be required if you notice that the touch panel is not responsive.
- Do not let the hand holding the camera accidently apply pressure to the touch panel. Doing so may affect the touch panel operation.
- Do not press on the LCD monitor with hard pointed tips, such as ball point pens.
- Do not operate with your fingernails.
- Wipe the LCD monitor with dry soft cloth when it gets dirty with finger prints and others.
- Do not scratch or press the LCD monitor too hard.

■ About the Stylus pen

It is easier to use the stylus pen (supplied) for detailed operation or if it is hard to operate with your fingers.

- Only use the supplied stylus pen.
- Do not place it where small children can reach.

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About the Lens

■ Micro Four Thirds™ mount specification lens

This unit can use the dedicated lenses compatible with the Micro Four Thirds System lens mount specification (Micro Four Thirds mount).

- Select a lens that matches the scene being recorded and your use of the pictures.

■ Four Thirds™ mount specification lens

Lens with the Four Thirds mount specification can be used by using the mount adaptor (DMW-MA1; optional).

■ Leica mount specification lens

- When you use the M mount adaptor or R mount adaptor (DMW-MA2M, DMW-MA3R;optional), you can use Leica M Mount or Leica R Mount interchangeable lenses.
  - For certain lenses, the actual distance at which the subject is in focus may differ slightly from the rated distance.
  - When using a Leica lens mount adaptor, set [SHOOT W/O LENS] to [ON].

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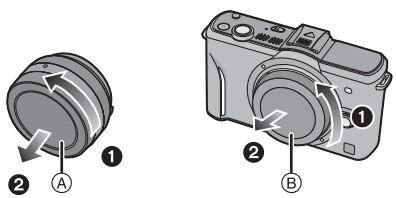
Attaching/Detaching the Lens

- Check that the camera is turned off.
- Change lenses where there is not a lot of dirt or dust.

Attaching a lens to the camera body

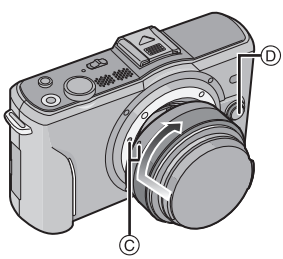
1 Turn the lens rear cap Ⓐ and the body cap Ⓑ in the direction of the arrow to detach them.



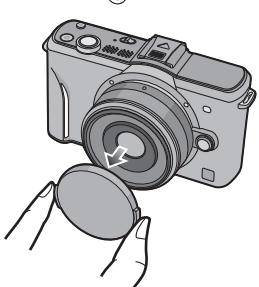
- Do not put your hands inside the mount.

2 Align the lens fitting marks Ⓒ (red marks) on the camera body and the lens and then rotate the lens in the direction of the arrow until it clicks.

- Do not press the lens release button Ⓓ when you attach a lens.
- Do not try to attach the lens when holding it at an angle to the camera body as the lens mount may get scratched.



3 Detach the lens cap.



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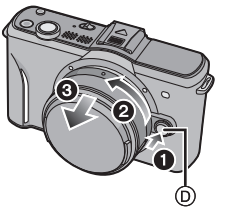
Detaching a lens from the camera body

1 Attach the lens cap.

2 Press the lens release button Ⓓ while turning the lens as far as possible in the direction of the arrow to detach it.

- Always attach the body cap to the camera body so that dirt or dust does not get inside.
- Attach the lens rear cap so that the lens contact point does not get scratched.



Note

- It is recommended to attach the lens cap or attach the MC Protector (optional) to protect the lens surface when carrying.

Attaching the Lens Hood

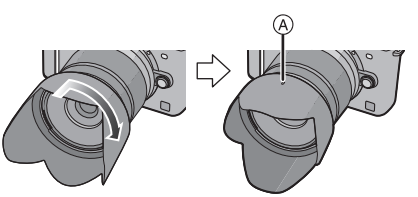
In bright sunlight or backlight, the lens hood will minimize lens flare and ghosting. The lens hood cuts off excess lighting and improves the picture quality.

To attach the lens hood (flower shape) that came with the interchangeable lens (H-FS014042)

- The interchangeable lens (H-H014) does not have a lens hood.

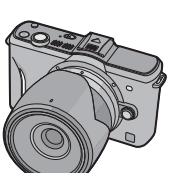
Insert the lens hood into the lens with the short sides at the top and bottom, and turn in the direction of the arrow until it stops.

Ⓐ Align with the mark.



Note

- When temporarily detaching and carrying the lens hood, attach the lens hood to the lens in the reverse direction.



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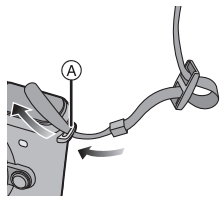
Attaching the Shoulder Strap

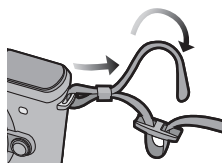
- **We recommend attaching the shoulder strap when using the camera to prevent it from dropping.**

1 **Pass the shoulder strap through the shoulder strap eyelet on the camera body.**

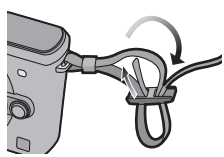
Ⓐ: Shoulder strap eyelet



2 **Pass the end of the shoulder strap through the ring in the direction of the arrow and then pass it through the stopper.**

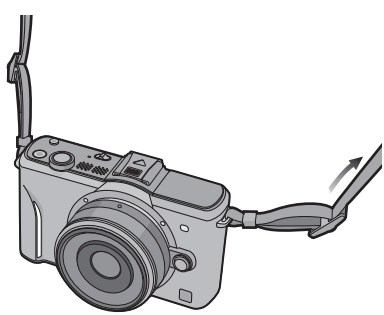


3 **Pass the end of the shoulder strap through the hole on the other side of the stopper.**



4 **Pull the other side of the shoulder strap and then check that it is secure.**

- Perform steps **1** to **4** and then attach the other side of the shoulder strap.



Note

- Use the shoulder strap around your shoulder.
  – Do not wrap the strap around your neck.
  – It may result in injury or accident.
- Do not leave the shoulder strap where an infant can reach it.
  – It may result in an accident by mistakenly wrapping around the neck.

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Charging the Battery

■ About batteries that you can use with this unit

The battery that can be used with this unit is DMW-BLD10PP.

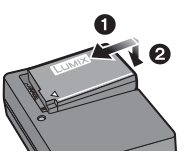
It has been found that counterfeit battery packs which look very similar to the genuine product are made available to purchase in some markets. Some of these battery packs are not adequately protected with internal protection to meet the requirements of appropriate safety standards. There is a possibility that these battery packs may lead to fire or explosion. Please be advised that we are not liable for any accident or failure occurring as a result of use of a counterfeit battery pack. To ensure that safe products are used we would recommend that a genuine Panasonic battery pack is used.

- **Use the dedicated charger and battery.**
- **The camera has a function for distinguishing batteries which can be used safely. The dedicated battery (DMW-BLD10PP) supports this function. The only batteries suitable for use with this unit are genuine Panasonic products and batteries manufactured by other companies and certified by Panasonic. (Batteries which do not support this function cannot be used.) Panasonic cannot in any way guarantee the quality, performance or safety of batteries which have been manufactured by other companies and are not genuine Panasonic products.**

■ Charging

- **The battery is not charged when the camera is shipped. Charge the battery before use.**
- Charge the battery with the charger indoors.

1 Attach the battery paying attention to the direction of the battery.



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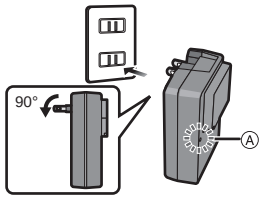
2 Connect the charger to the electrical outlet.

- Disconnect the charger from the electrical socket and detach the battery after charging is completed.



■ About the [CHARGE] indicator

The [CHARGE] indicator turns on: The [CHARGE] indicator Ⓐ is turned on and charging will start.

The [CHARGE] indicator turns off: The [CHARGE] indicator Ⓐ of the charger will turn off once the charging has completed without any problem.

• When the [CHARGE] indicator flashes

– The battery temperature is too high or too low. It is recommended to charge the battery again in an ambient temperature of between 10 °C to 30 °C (50 °F to 86 °F).

– The terminals of the charger or the battery are dirty. In this case, wipe them with a dry cloth.

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■ **Charging time**

Charging time	Approx. 120 min

- **The indicated charging time is for when the battery has been discharged completely. The charging time may vary depending on how the battery has been used. The charging time for the battery in hot/cold environments or a battery that has not been used for a long time may be longer than normal.**

Approximate operating time and number of recordable pictures

■ **Battery indication**

The battery indication is displayed on the screen.
[It does not appear when you use the camera with the AC adaptor (DMW-AC8PP; optional) connected.]

- The indication turns red and blinks if the remaining battery power is exhausted. (The status indicator also blinks) Recharge the battery or replace it with a fully charged battery.

■ **Recording still pictures [when using the LCD monitor] (By CIPA standard in Program AE Mode)**

	When the interchangeable lens (H-H014) is used
Number of recordable pictures	Approx. 320 pictures
Recording time	Approx. 160 min

	When the interchangeable lens (H-FS014042) is used
Number of recordable pictures	Approx. 300 pictures
Recording time	Approx. 150 min

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■ **Recording still pictures [when using the Optional Live Viewfinder] (By CIPA standard in Program AE Mode)**

	When the interchangeable lens (H-H014) is used
Number of recordable pictures	Approx. 330 pictures
Recording time	Approx. 165 min

	When the interchangeable lens (H-FS014042) is used
Number of recordable pictures	Approx. 310 pictures
Recording time	Approx. 155 min

Recording conditions by CIPA standard

- CIPA is an abbreviation of [Camera & Imaging Products Association].
- Temperature: 23 °C (73.4 °F)/Humidity: 50%RH when LCD monitor is on.
- Using a Panasonic SD Memory Card (2 GB).
- Using the supplied battery.
- Starting recording 30 seconds after the camera is turned on.
- **Recording once every 30 seconds** with full flash every second recording.
- Turning the camera off every 10 recordings and leaving it until the temperature of the battery decreases.

The number of recordable pictures varies depending on the recording interval time. If the recording interval time becomes longer, the number of recordable pictures decreases. [For example, if you were to take one picture every two minutes, then the number of pictures would be reduced to approximately one-quarter of the number of pictures given above (based upon one picture taken every 30 seconds).]

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■ **Recording motion pictures (when using the LCD monitor)**

– [AVCHD] (Recording with picture quality set to [FSH])

	When the interchangeable lens (H-H014) is used
Continuous recordable time	Approx. 130 min
Actual recordable time	Approx. 70 min

	When the interchangeable lens (H-FS014042) is used
Continuous recordable time	Approx. 120 min
Actual recordable time	Approx. 60 min

– [MOTION JPEG] (Recording with picture quality set to [HD])

	When the interchangeable lens (H-H014) is used
Continuous recordable time	Approx. 140 min✳
Actual recordable time	Approx. 75 min✳

	When the interchangeable lens (H-FS014042) is used
Continuous recordable time	Approx. 130 min✳
Actual recordable time	Approx. 65 min✳

- These times are for an ambient temperature of 23 °C (73.4 °F) and a humidity of 50%RH. Please be aware that these times are approximate.
- Actual recordable time is the time available for recording when repeating actions such as switching the power supply [ON]/[OFF], starting/stopping recording etc.

✳ Motion picture recorded continuously in [MOTION JPEG] is up to 2 GB. Only the maximum recordable time for 2 GB is displayed on the screen.

■ **Playback (when using the LCD monitor)**

	When the interchangeable lens (H-H014) is used
Playback time	Approx. 250 min

	When the interchangeable lens (H-FS014042) is used
Playback time	Approx. 240 min

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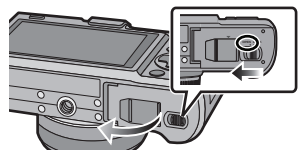
Inserting and Removing the Card (optional)/the Battery

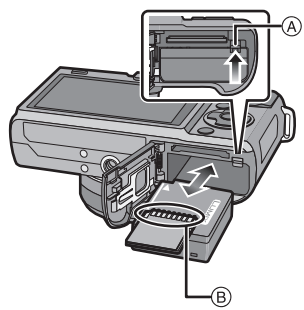
- Check that this unit is turned off.
- We recommend using a Panasonic card.

1 **Slide the release lever in the direction of the arrow and open the card/battery door.**



- **Always use genuine Panasonic batteries (DMW-BLD10PP).**
- **If you use other batteries, we cannot guarantee the quality of this product.**

2 **Battery: Insert until it is locked by the lever Ⓐ being careful about the direction you insert it. Pull the lever Ⓐ in the direction of the arrow to remove the battery.**

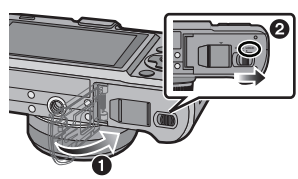


Card: Push it fully until it clicks being careful about the direction you insert it. To remove the card, push the card until it clicks, then pull the card out upright.

Ⓑ: Do not touch the connection terminals of the card.

- The card may be damaged if it is not fully inserted.

3 **❶:Close the card/battery door.**



❷:Slide the release lever in the direction of the arrow.

- If the card/battery door cannot be completely closed, remove the card, check its direction and then insert it again.

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About the Card

About cards that can be used with this unit

The following cards which conform to the SD standard can be used with this unit.
(These cards are indicated as **card** in the text.)

Type of card which can be used with this unit	Remarks
SD Memory Card (8 MB to 2 GB)	• SDHC Memory Card can be used with SDHC Memory Card or SDXC Memory Card compatible equipment. • SDXC Memory Card can only be used with SDXC Memory Card compatible equipment. • Check that the PC and other equipment are compatible when using the SDXC Memory Cards. **http://panasonic.net/avc/sdcard/information/SDXC.html**
SDHC Memory Card (4 GB to 32 GB)	
SDXC Memory Card (48 GB, 64 GB)	

- Only cards bearing the SDHC logo (indicating that the card conforms to SD standards) may be used as 4 GB to 32 GB cards.
- Only cards bearing the SDXC logo (indicating that the card conforms to SD standards) may be used as 48 GB and 64 GB cards.
- Use a card with SD Speed Class ✳ with “Class 4” or higher when recording motion pictures in [AVCHD]. Also, use a card with SD Speed Class with “Class 6” or higher when recording motion pictures in [MOTION JPEG].

✳ SD Speed Class is the speed standard regarding continuous writing. Check via the label on the card, etc.

e.g.:

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Access to the card
The access indication lights red when pictures are being recorded on the card.

- **Do not turn this unit off, remove its battery or card, or disconnect the AC adaptor (DMW-AC8PP; optional) when the access indication is lit [when pictures are being written, read or deleted, or the card is being formatted]. Furthermore, do not subject the camera to vibration, impact or static electricity.**
  The card or the data on the card may be damaged, and this unit may no longer operate normally.
  If operation fails due to vibration, impact or static electricity, perform the operation again.
- Please confirm the latest information on the following website.
  http://panasonic.jp/support/global/cs/dsc/
  (This Site is English only.)

Note
- Keep the Memory Card out of reach of children to prevent swallowing.

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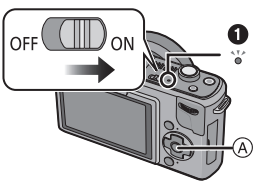
Setting Date/Time (Clock Set)

The clock can be setup with the following procedure at the time of purchase. Change the clock setting in [CLOCK SET] of the [SETUP] menu.
For details, read the PDF.

• The clock is not set when the camera is shipped.

1 Turn the camera on.

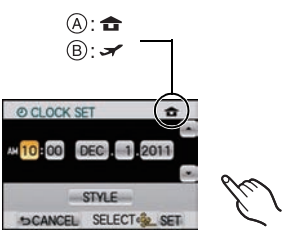
• The status indicator ❶ lights when you turn this unit on.
Ⓐ [MENU/SET] button



2 Touch [CLOCK SET].

3 Touch the items you wish to set (Year/Month/Day/Hours/Minutes), and set using [▲]/[▼].

Ⓐ: Time at the home area
Ⓑ: Time at the travel destination
• You can continue to switch the settings by continuously touching [▲]/[▼].
• Touch [CANCEL] to cancel the date and time settings without setting a date and time.



To set the display order and the time display format.

• Touch [STYLE] to display the settings screen for setting display order/time display format.
• Touch [CANCEL] to return to the previous screen without setting the display order/time display format.

4 Touch [SET] to set.

5 Touch [SET].

• After completing the clock settings, turn the camera off. Then turn the camera back on, switch to Recording Mode, and check that the display reflects the settings that were performed.

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Selecting the [REC] Mode

1 **Press [MENU/SET].**

2 **Touch [REC MODE].**

- A screen listing the [REC] Mode is displayed.

3 **Touch the [REC] Mode to select.**

■ **List of [REC] Modes**

P **Program AE Mode**

The subjects are recorded using your own settings.

A **Aperture-Priority AE Mode**

The shutter speed is automatically determined by the aperture value you set.

S **Shutter-Priority AE Mode**

The aperture value is automatically determined by the shutter speed you set.

M **Manual Exposure Mode**

The exposure is adjusted by the aperture value and the shutter speed which are manually adjusted.

iA **Intelligent Auto Mode**

The subjects are recorded using settings automatically selected by the camera.

My Color Mode

Use this mode to check coloring effects, select a color mode from among nine color modes, and then take pictures.

SCN **Scene Mode**

This allows you to take pictures that match the scene being recorded.

C **Custom Mode**

Use this mode to take pictures with previously registered settings.

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Taking a Still picture

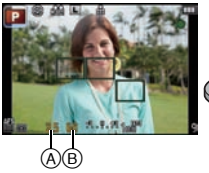
Taking Pictures with Your Favorite Settings (Program AE Mode)

The camera automatically sets the shutter speed and the aperture value according to the brightness of the subject.
You can take pictures with greater freedom by changing various settings in [REC] Mode menu.
• Set the drive mode to [▭] by pressing ▼(⧉ ⏲).

1 Set [REC] Mode to [P].

2 Press the shutter button halfway to focus.

Ⓐ Aperture value
Ⓑ Shutter speed



- Aperture value and shutter speed are displayed. (It will flash in red if the correct exposure is not achieved, except when set to flash.)
- **You will not be able to take a picture until the focus is set, since the [FOCUS PRIORITY] is set initially to [ON].**

3 Press the shutter button fully (push it in further), and take the picture.

- The access indication lights red when pictures are being recorded on the card.

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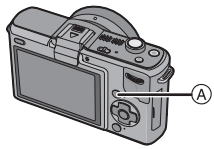
1 **Press [▶].**

Ⓐ [▶] button



2 **Forward or rewind the image by dragging the screen horizontally.**

Forward: drag from right to left
Rewind: drag from left to right

- It is also possible to forward or rewind the image by pressing ◄/► of the cursor button.
- Speed of picture forwarding/rewinding changes depending on the playback status.
- You can forward or rewind pictures continuously by keeping your finger on the left or right sides of the screen after forwarding/rewinding a picture. (Pictures are displayed reduced in size)

■ To finish playback

Press [▶] again, press the motion picture button or press the shutter button halfway.

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[REC] Mode: iA P A S M SCN C

Recording Motion Picture

This can record full high definition motion pictures compatible with the AVCHD format or motion pictures recorded in Motion JPEG.
Audio will be recorded in stereo.
The functions available when recording motion pictures differ according to the lens you are using, and the operational sound of the lens may be recorded.

Recording of motion picture appropriate for each mode is possible.

• Screen here is an example of when the [REC] mode is set to [P] (Program AE Mode).

1 Start recording by pressing the motion picture button.

Ⓐ Elapsed recording time
Ⓑ Available recording time

- Sound will be heard when pressing the motion picture button indicating start/stop of motion picture recording.
- The recording state indicator (red) Ⓒ will flash while recording motion pictures.

2 Stop the recording by pressing the motion picture button again.

Note

- Maximum time to record motion pictures continuously with [AVCHD] is 13 hours 3 minutes 20 seconds. Screen will only display up to 13 hours 3 minutes 20 seconds. However, the recording may stop before that depending on the remaining battery level.
- Motion picture recorded continuously in [MOTION JPEG] is up to 2 GB. Only the maximum recordable time for 2 GB is displayed on the screen.

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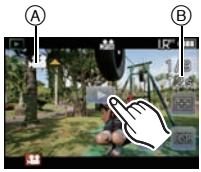
Playing Back Motion Pictures

- This unit was designed to play motion pictures using the AVCHD and QuickTime Motion JPEG formats that were taken with this model (only).
- Motion pictures in AVCHD format that can be played back on this unit are [AVCHD] motion pictures that were recorded with this unit, AVCHD format (including [AVCHD Lite]) motion pictures recorded with Panasonic digital cameras (LUMIX) only.

1 **Press [▶].**

2 **Select a picture with a Motion Picture icon ([🎥], [🎞]) and then touch [▶] to play back.**



Ⓐ Motion picture icon
Ⓑ The motion picture recording time

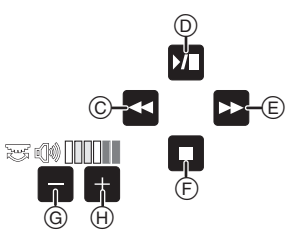
- After playback starts, the elapsed playback time is displayed on the upper left of the screen.
  For example, 8 minutes and 30 seconds is displayed as [8m30s].
- Some information (recording information, etc.) is not displayed for motion pictures recorded in [AVCHD].
- Pressing the cursor button ▲ to allows you to playback motion pictures. Display at the upper right of the screen while playing back corresponds to ▲/▼/◄/► on the cursor button.

■ Operations performed during Motion Picture Playback

1 **Display control panel by touching screen.**

- If no operation is performed for 2 seconds, it will return to original status.

2 **Operate control panel by touching.**



Ⓒ Fast rewind, Frame-by-frame rewind∗2
Ⓓ Play/Pause
Ⓔ Fast forward, Frame-by-frame forward∗2
Ⓕ Stop
Ⓖ Reduce volume level∗1
Ⓗ Increase volume level∗1

∗1 You can also adjust the volume level by using the rear dial.
∗2 These operations can be performed only in the Pause Mode and the following icons are displayed.
– Frame-by-frame forward: [▮▶]
– Frame-by-frame rewind: [◀▮]

• About fast forward/rewind playback

– Touch [▶▶] during playback to fast forward (touch [◀◀] to fast rewind). The fast forward/rewind speed increases if you touch [▶▶]/[◀◀] again. (The display on the screen changes from [▶▶] to [▶▶▶].)
– Touch [▶] to resume normal playback speed.
– When using a high capacity card, it is possible that fast rewinding may be slower than usual.

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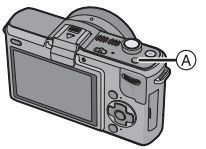
[REC] Mode: iA

Taking Pictures using the Automatic Function
(Intelligent Auto Mode)

The camera will set the most appropriate settings to match the subject and the recording conditions so we recommend this mode for beginners or those who want to leave the settings to the camera and take pictures easily.

Press [iA].



Ⓐ [iA] button

- [iA] button will light up when it is switched to Intelligent Auto Mode. [iA] button is turned off during recording to prevent the light reflecting on glass or similar, but this is not a malfunction.
- [iA] button is turned off and the camera is switched to [REC] Mode setup before the Intelligent Auto Mode was set when it is pressed again.
- It is also possible to switch to Intelligent Auto Mode from the screen listing the [REC] Mode.
- The following functions are activated automatically.
  – Scene Detection/[RED-EYE REMOVAL]/Face Detection/Intelligent ISO sensitivity control/ [I.DYNAMIC]/[LONG SHTR NR]/ [FOCUS PRIORITY]/Backlight Compensation/ [I.RESOLUTION]
- **In Intelligent Auto Mode, [FOCUS PRIORITY] is fixed to [ON]. When the subject is correctly focused, the picture will be taken.**

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Scene Detection

When the camera identifies the optimum scene, the icon of the scene concerned is displayed in blue for 2 seconds, after which its color changes to the usual red.

When taking pictures

iA →	[i-PORTRAIT]	• Only when [iA] is selected
	[i-SCENERY]	
	[i-MACRO]	
	[i-NIGHT PORTRAIT]	
	[i-NIGHT SCENERY]	
	[i-BABY]*	
	[i-SUNSET]	

When recording motion pictures

iA →	[i-PORTRAIT]
	[i-SCENERY]
	[i-LOW LIGHT]
	[i-MACRO]

- [iA] is set if none of the scenes are applicable, and the standard settings are set.
- When [ ], [ ] or [ ] is selected, the camera automatically detects a person's face, and it will adjust the focus and exposure. **(Face Detection)**
- If a tripod is used, for instance, and the camera has judged that camera shake is minimal when the Scene Mode has been identified as [ ], the shutter speed will be slower than normal. Take care not to move the camera while taking pictures.
- An optimum scene for the specified subject will be chosen when set to AF tracking.
- When [FACE RECOG.] is set to [ON], and the face similar to the registered face is detected, [R] is displayed in the top right of [ ], [ ] and [ ].

* When [FACE RECOG.] is set to [ON], [ ] will be displayed for birthdays of registered faces already set only when the face of a person 3 years old or younger is detected.

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AF Tracking Function

It is possible to set the focus and exposure to the specified subject. Focus and exposure will keep following the subject automatically even if it moves.

■ When operating the touch panel

You can lock the subject by touching it.

- [ ] is displayed in the lower left of the screen.
- AF Tracking frame will be displayed in yellow, and it will determine the most appropriate scene for the locked subject.
- AF Tracking is canceled when [OFF] is touched.

■ When operating buttons

1 Press ◄.

- [ ] is displayed in the lower left of the screen.
- AF Tracking frame is displayed in the center of the screen.
- Press ◄ again to cancel.

  (Tracking AF can also be canceled by touching [ ].)

2 Place the subject in the Tracking frame, and press the shutter button halfway to lock the subject.

- AF area will turn green when the camera detects the subject.
- AF tracking frame will turn yellow when you release the shutter button and the optimum scene for the locked subject will be identified.
- Press [MENU/SET] to cancel.

  (Lock can also be canceled by touching [OFF].)

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Defocus control function

You can set to your preferred blurriness.

1 Touch [ ] to display the setting screen.

2 Touch the slide bar to set.

3 Recording of pictures or motion pictures.

- It is also possible to record a picture by touching [ ].
- Defocus Control is canceled by touching [ ].

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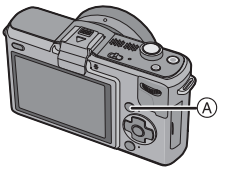
Deleting Pictures

Once deleted, pictures cannot be recovered.

Press [▶].

Ⓐ [▶] button



To delete a single picture

1 **Select the picture to be deleted, and then touch [🗑].**

2 **Touch [DELETE SINGLE].**

3 **Touch [YES].**

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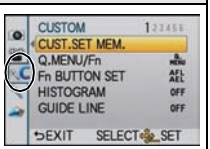
Setting the Menu

When [MENU/SET] is pressed, [REC MODE] and 5 menus ([REC], [MOTION PICTURE], [CUSTOM], [SETUP], and [PLAYBACK]) are displayed.
In the 5 different menus, there are menus that allow you to setup the recording or playback to your preference, or make it more fun and easier to use the camera.
In particular, the [SETUP] menu contains some important settings relating to the camera's clock and power. Check the settings of this menu before proceeding to use the camera.

[REC MODE]

[CUSTOM] menu

• Operation of the unit, such as displaying of the screen and button operations, can be set up according to your preferences. Also, it is possible to register the modified settings.

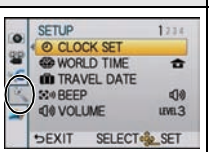


[REC] Mode menu

• This menu lets you set the aspect ratio, number of pixels and other aspects of the pictures you are recording.

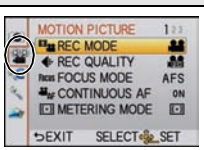
[SETUP] menu

• This menu lets you perform the clock settings, select the operating beep tone settings and set other settings which make it easier for you to operate the camera.



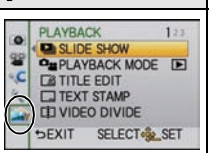
[MOTION PICTURE] Mode menu

• This menu lets you set the [REC MODE], [REC QUALITY], and other aspects for motion picture recording.



[PLAYBACK] Mode menu

• This menu lets you set the Protection, Cropping or Print Settings, etc. of recorded pictures.



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Setting menu items

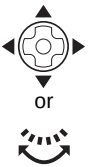
This section describes how to setup the menu items.

- If you set [MENU RESUME] in the [CUSTOM] menu to [ON], the screen shows the last selected menu item when the camera was turned off.
  It is set to [ON] at the time of purchase.

1 Press [MENU/SET].

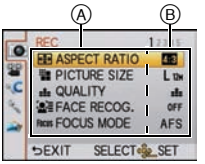
2 Select the menu by pressing ▲/▼/◄/► or by rotating the rear dial.

- Press [🗑/↩] to return to the recording screen.
- It can also be set by the touch operation.



3 Press [MENU/SET] to display the menu.

Ⓐ Menu item
Ⓑ Settings



4 Select the menu item by pressing ▲/▼ or by rotating the rear dial.

- Select the item at the very bottom, and press ▼ or rotate the rear dial right to move to the next screen.

5 Press [MENU/SET] or the rear dial.

- Depending on the item, its setting may not appear or it may be displayed in a different way.
- The figure on the right is an example of selecting [I.DYNAMIC] in the Program AE Mode.

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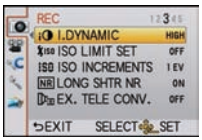
6 **Select the settings by pressing ▲/▼ or by rotating the rear dial.**

- The figure on the right is an example of setting [I.DYNAMIC] from [OFF] to [HIGH].

or

7 **Press [MENU/SET] or the rear dial to set.**



MENU/SET

or

8 **Press [🗑/↩] to close the menu.**

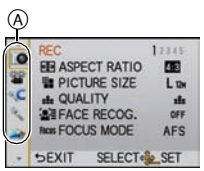
- You can also press the shutter button halfway to close the menu.

■ Switching to other menus

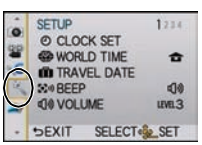
e.g.: Switching to the [SETUP] menu from [REC] mode menu

1 **Press ◄.**

Ⓐ Menu toggle icon



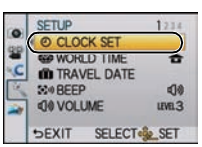
2 **Press ▼ or rotate the rear dial to select the [SETUP] menu icon [🔧].**



or

3 **Press ► or the rear dial.**

- Select a menu item next and set it.



or

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[REC] Mode: iA P A S SCN C

Compensating the Exposure

Use this function when you cannot achieve appropriate exposure due to the difference in brightness between the subject and the background. Look at the following examples.

Underexposed | **Properly exposed** | **Overexposed**

Compensate the exposure towards positive.

Compensate the exposure towards negative.

1 Press the rear dial to switch to Exposure Compensation operation.

2 Rotate the rear dial to compensate the exposure.

Ⓐ Exposure Compensation value
Ⓑ [EXPO.METER]

- Select [0] to return to the original exposure.
- Rotate the rear dial to display the [EXPO.METER]. (However, it does not appear in iA/SCN Mode.)

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[REC] Mode: A S

Taking Pictures by Specifying the Aperture/ Shutter Speed

Aperture-priority AE

Set the aperture value to a higher number when you want a sharp focus background. Set the aperture value to a lower number when you want a soft focus background.

1 Set [REC] Mode to [A].

2 Rotate the rear dial to set the aperture value.

- It will switch between aperture setting operation and Exposure Compensation operation every time the rear dial is pressed.
- Rotate the rear dial to display the [EXPO.METER].

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Shutter-priority AE

When you want to take a sharp picture of a fast moving subject, set with a faster shutter speed. When you want to create a trail effect, set to a slower shutter speed.

1 Set [REC] Mode to [S].

2 Rotate the rear dial to set the shutter speed.

- It will switch between shutter speed setting operation and Exposure Compensation operation every time the rear dial is pressed.
- Rotate the rear dial to display the [EXPO.METER].

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[REC] Mode: M

Taking Picture by Setting the Exposure Manually

Determine the exposure by manually setting the aperture value and the shutter speed. The Manual Exposure Assistance appears on the lower portion of the screen to indicate the exposure.

1 **Set [REC] Mode to [M].**

2 **Rotate the rear dial to set the aperture and shutter speed.**

- It will switch between aperture setting operation and shutter speed setting operation every time the rear dial is pressed.
- Rotate the rear dial to display the [EXPO.METER].
- You can also set the focus manually by setting the [FOCUS MODE] to [MF].

3 **Press the shutter button halfway.**

Ⓐ Manual Exposure Assistance

- Set the aperture value and the shutter speed again when the exposure is not adequate.

■ Manual Exposure Assistance

	The exposure is adequate.
	Set to faster shutter speed or larger aperture value.
	Set to slower shutter speed or smaller aperture value.

- The manual exposure assistance is an approximation. We recommend checking the pictures on the playback screen.

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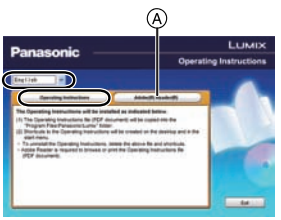
Reading the Operating Instructions (PDF format)

More detailed instructions on the operation of this camera are contained in "Operating Instructions for Advanced Features (PDF format)" in the supplied CD-ROM. Install it on your PC to read it.

■ **For Windows**

1. **Turn the PC on and insert the CD-ROM containing the Operating Instructions (supplied).**
2. **Select the desired language and then click [Operating Instructions] to install.**
3. **Double click the "Operating Instructions" shortcut icon on the desktop.**



■ **When the Operating Instructions (PDF format) will not open**

You will need Adobe Acrobat Reader 5.0 or later or Adobe Reader 7.0 or later to browse or print the Operating Instructions (PDF format).
Insert the CD-ROM containing the Operating Instructions (supplied), click Ⓐ and then follow the messages on the screen to install.
(Compatible OS: Windows 2000 SP4/Windows XP SP3/Windows Vista SP2/Windows 7)

- You can download and install a version of Adobe Reader that you can use with your OS from the following Web Site.
  http://get.adobe.com/reader/otherversions

■ **To uninstall the Operating Instructions (PDF format)**

Delete the PDF file from the "Program Files\Panasonic\Lumix\" folder.
- When the contents in the Program Files folder cannot be displayed, click the [Show the contents of this folder] to display them.

■ **For Macintosh**

1. **Turn the PC on and insert the CD-ROM containing the Operating Instructions (supplied).**
2. **Open the "Manual" folder in the CD-ROM and then copy the PDF file with the desired language inside the folder.**
3. **Double click the PDF file to open it.**

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Specifications

Digital Camera Body (DMC-GF2): Information for your safety

Power Source:	DC 8.4 V
Power Consumption:	2.6 W (When recording with LCD Monitor) [When the Interchangeable lens (H-H014) is used] 2.7 W (When recording with LCD Monitor) [When the Interchangeable lens (H-FS014042) is used] 1.7 W (When playing back with LCD Monitor) [When the Interchangeable lens (H-H014) is used] 1.8 W (When playing back with LCD Monitor) [When the Interchangeable lens (H-FS014042) is used]

Camera effective pixels:	12,100,000 pixels
Image sensor:	4/3″ Live MOS sensor, total pixel number 13,060,000 pixels, Primary color filter
Digital Zoom:	Max. 4×
Extra Tele Conversion: (Except for the maximum picture size for each aspect ratio)	ON/OFF simple enlargement (compatible with lenses from other manufacturers)
Focus:	Auto Focus/Manual Focus, Face Detection/AF Tracking/23-area-focusing/1-area-focusing (Touch focus area selection possible)
Shutter system:	Focal-plane shutter
Burst recording	
Burst speed:	3.2 pictures/second (High speed), 2.5 pictures/second (Middle speed), 2 pictures/second (Low speed)
Number of recordable pictures:	Max. 7 pictures (when there are RAW files) Depends on the capacity of the card (when there are no RAW files)
ISO sensitivity (Standard Output Sensitivity):	AUTO/iISO/100/200/400/800/1600/3200/6400 (1/3 EV step change possible)
Minimum Illumination:	Approx. 5 lx (when i-Low light is used, the shutter speed is 1/30th of a second) [When the Interchangeable lens (H-H014) is used] Approx. 9 lx (when i-Low light is used, the shutter speed is 1/30th of a second) [When the Interchangeable lens (H-FS014042) is used]

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Shutter speed:	60 seconds to 1/4000th of a second
Metering range:	EV 0 to EV 18
White Balance:	Auto White Balance/Daylight/Cloudy/Shade/Incandescent lights/Flash/White set1/White set2/White Balance K set
Exposure (AE):	Program AE (P)/Aperture-priority AE (A)/Shutter-priority AE (S)/ Manual exposure (M)/AUTO Exposure Compensation (1/3 EV Step, −3 EV to +3 EV)
Metering Mode:	Multiple/Center weighted/Spot
LCD monitor:	3.0″ TFT LCD (3:2) (Approx. 460,000 dots) (field of view ratio about 100%) Touch panel
Flash:	Built-in pop up flash GN 6 equivalent (ISO100·m) Flash range: Approx. 50 cm (1.64 feet) to 4.8 m (15.7 feet) [When the Interchangeable lens (H-H014) is mounted, [ISO AUTO] is set] Flash range: Approx. 1.0 m (3.28 feet) to 3.4 m (11.2 feet) [When the Interchangeable lens (H-FS014042) is mounted, WIDE, [ISO AUTO] is set] AUTO, AUTO/Red-Eye Reduction, Forced ON, Forced ON/ Red-eye reduction, Slow Sync., Slow Sync./Red-Eye Reduction, Forced OFF
Flash synchronization speed:	Equal to or smaller than 1/160th of a second
Microphone:	Stereo
Speaker:	Monaural
Recording media:	SD Memory Card/SDHC Memory Card/SDXC Memory Card
Picture size	
Still picture:	When the aspect ratio setting is [4:3] 4000×3000 pixels, 2816×2112 pixels, 2048×1536 pixels When the aspect ratio setting is [3:2] 4000×2672 pixels, 2816×1880 pixels, 2048×1360 pixels When the aspect ratio setting is [16:9] 4000×2248 pixels, 2816×1584 pixels, 1920×1080 pixels When the aspect ratio setting is [1:1] 2992×2992 pixels, 2112×2112 pixels, 1504×1504 pixels

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Recording quality

Motion pictures:	[AVCHD] (With audio) When set to [FSH]: 1920×1080 pixels (60i* recording/ Approx. 17 Mbps)/ When set to [FH]: 1920×1080 pixels (60i* recording/ Approx. 13 Mbps)/ When set to [SH]: 1280×720 pixels (60p* recording/ Approx. 17 Mbps)/ When set to [H]: 1280×720 pixels (60p* recording/ Approx. 13 Mbps) (*Sensor output is 30 frames/sec.) [MOTION JPEG] (With audio) When set to [HD]: 1280×720 pixels (30 frames/sec.)/ When set to [WVGA]: 848×480 pixels (30 frames/sec.)/ When set to [VGA]: 640×480 pixels (30 frames/sec.)/ When set to [QVGA]: 320×240 pixels (30 frames/sec.)
Quality:	RAW/RAW+Fine/RAW+Standard/Fine/Standard/MPO+Fine/ MPO+Standard

Recording file format

Still Picture:	RAW/JPEG (based on “Design rule for Camera File system”, based on “Exif 2.3” standard, DPOF corresponding)/MPO
Motion pictures with audio:	AVCHD/QuickTime Motion JPEG

Interface

Digital:	“USB 2.0” (High Speed)
Analog video/ audio:	NTSC Audio line output (stereo)

Terminal

[AV OUT/DIGITAL]:	Dedicated jack (14 pin)
[HDMI]:	MiniHDMI TypeC
[Live Viewfinder]:	Dedicated connector
Dimensions:	Approx. 112.8 mm (W)×67.8 mm (H)×32.8 mm (D) [4.44″ (W)×2.67″(H)×1.29″ (D)] (excluding the projecting parts)
Mass (weight):	Approx. 365 g/0.80 lb [with the Interchangeable lens (H-H014), card and battery] Approx. 475 g/1.05 lb [with the Interchangeable lens (H-FS014042), card and battery] Approx. 265 g/0.58 lb (camera body)
Operating temperature:	0 °C to 40 °C (32 °F to 104 °F)
Operating humidity:	10%RH to 80%RH
Language select:	[ENGLISH]/[FRANÇAIS]/[ESPAÑOL]/[PORTUGUÊS]

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Battery Charger (Panasonic DE-A93B): Information for your safety

Input:	~110 V to 240 V, 50/60 Hz, 0.2 A
Output:	⎓8.4 V, 0.65 A

Battery Pack (lithium-ion) (Panasonic DMW-BLD10PP): Information for your safety

Voltage/capacity:	7.2 V/1010 mAh

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Interchangeable Lens (H-H014)
“LUMIX G 14 mm/F2.5 ASPH.”

Focal length:	f=14 mm (35 mm film camera equivalent: 28 mm)
Aperture type:	7 diaphragm blades/circular aperture diaphragm
Aperture range:	F2.5
Minimum aperture value:	F22
Lens construction:	6 elements in 5 groups (3 aspherical lenses)
In focus distance:	0.18 m (0.59 feet) to ∞ (from the focus distance reference line)
Maximum image magnification:	0.1× (35 mm film camera equivalent: 0.2×)
Optical Image Stabilizer:	None
[O.I.S.] switch:	None
Mount:	“Micro Four Thirds Mount”
Angle of view:	75°
Filter diameter:	46 mm (1.81 inch)
Max. diameter:	Approx. 55.5 mm (2.19 inch)
Overall length:	Approx. 20.5 mm (0.81 inch) (from the tip of the lens to the base side of the lens mount)
Mass (weight):	Approx. 55 g/0.12 lb

Interchangeable Lens (H-FS014042)
“LUMIX G VARIO 14–42 mm/F3.5–5.6 ASPH./MEGA O.I.S.”

Focal length:	f=14 mm to 42 mm (35 mm film camera equivalent: 28 mm to 84 mm)
Aperture type:	7 diaphragm blades/circular aperture diaphragm
Aperture range:	F3.5 (Wide) to F5.6 (Tele)
Minimum aperture value:	F22
Lens construction:	12 elements in 9 groups (1 aspherical lens)
In focus distance:	0.3 m (0.99 feet) to ∞ (from the focus distance reference line)
Maximum image magnification:	0.16× (35 mm film camera equivalent: 0.32×)
Optical Image Stabilizer:	Available
[O.I.S.] switch:	None (Setting of the [STABILIZER] is done in [REC] Mode menu.)
Mount:	“Micro Four Thirds Mount”
Angle of view:	75° (Wide) to 29° (Tele)
Filter diameter:	52 mm (2.05 inch)
Max. diameter:	Approx. 60.6 mm (2.39 inch)
Overall length:	Approx. 63.6 mm (2.50 inch) (from the tip of the lens to the base side of the lens mount)
Mass (weight):	Approx. 165 g/0.22 lb

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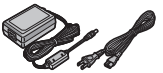
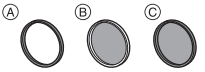
Digital Camera Accessory System

Accessory#	Figure	Description
DMW-BLD10PP		Lithum Ion Battery
DMW-AC8PP		AC Adaptor*1
DMW-DCC9		DC Coupler*1
DMW-ZL1		Zoom Lever*2
DMW-FL220 DMW-FL360 DMW-FL500		Flash
DMW-LVF1		Optional Live viewfinder
H-VS014140 H-FS014042 H-FS014045 H-FS045200 H-F007014/H-ES045 H-H020/H-F008 H-H014/H-FS100300 H-FT012		Interchangeable Lens
Ⓐ : DMW-LMC46*3 Ⓑ : DMW-LND46*3 Ⓒ : DMW-LPL46*3		Ⓐ : MC Protector Ⓑ : ND Filter Ⓒ : PL Filter (Circular Type)
Ⓐ : DMW-LMC52*4 Ⓑ : DMW-LND52*4 Ⓒ : DMW-LPL52*4		
DMW-BAL1		Leather Bag
DMW-BAG1		Soft Bag
DMW-CG3		Soft Case

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Accessory#	Figure	Description
DMW-LFC46*3 DMW-LFC52*4		Lens Cap
DMW-LRC1		Lens Rear Cap
DMW-BDC1		Body Cap
DMW-SSTL1 DMW-SSTG1/DMW-SSTG2 DMW-SSTG3/DMW-SSTG5 DMW-SSTG6		Shoulder Strap
RP-CDHM15 RP-CDHM30		HDMI mini Cable
DMW-MA1 DMW-MA2M DMW-MA3R		Mount Adaptor
DMW-TA1*5		Tripod Adaptor
RP-SDW64GU1K RP-SDW48GU1K RP-SDW32GU1K RP-SDW16GU1K RP-SDW08GU1K RP-SDW04GU1K		Class 10 64 GB SDXC Memory Card Class 10 48 GB SDXC Memory Card Class 10 32 GB SDHC Memory Card Class 10 16 GB SDHC Memory Card Class 10 8 GB SDHC Memory Card Class 10 4 GB SDHC Memory Card
RP-SDP16GU1K RP-SDP08GU1K RP-SDP04GU1K RP-SDP02GU1K		Class 4 16 GB SDHC Memory Card Class 4 8 GB SDHC Memory Card Class 4 4 GB SDHC Memory Card Class 4 2 GB SD Memory Card
RP-SDR08GU1A RP-SDR04GU1A RP-SDR02GU1A		Class 2 8 GB SDHC Memory Card Class 2 4 GB SDHC Memory Card Class 2 2 GB SD Memory Card

Product numbers correct as of December 2010. These may be subject to change.

∗1 The AC Adaptor (optional) can only be used with the designated Panasonic DC Coupler (optional). The AC adaptor (optional) cannot be used by itself.

∗2 The interchangeble lens (H-H014) is not used.

∗3 When the interchangeble lens (H-H014) is used

∗4 When the interchangeble lens (H-FS014042) is used

∗5 Use if the attached lens is in contact with the tripod pedestal.

- Read P13 for information about other lenses that can be used.
- Refer to P17 for information about the battery charging time and the number of recordable pictures.
- NOTE: Accessories and/or model numbers may vary between countries. Consult your local dealer.
- Refer to catalogues/Web pages for most current information regarding optional accessories.
  http://panasonic.jp/support/global/cs/dsc/
  (This Site is English only.)

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Digital Camera Accessory Order Form
(For USA and Puerto Rico Customers)

Please photocopy this form when placing an order.

1. Digital Camera Model # _____

2. Items Ordered

Accessory #	Description	Price Each	Quantity	Total Price
			Subtotal	
			Your State & Local Sales Tax	
			Shipping & Handling	6.95
			Total Enclosed	

3. Method of payment (check one)

☐ Check of Money Order enclosed (NO C.O.D.SHIPMENTS)

☐ VISA Credit Card # _____

☐ MasterCard Expiration Date _____

☐ Discover Customer Signature _____

Make Check or Money Order to: PANASONIC ACCESSORIES

(Please do not send cash)

4. Shipping information (UPS delivery requires complete street address)

Ship To:
Mr.
Mrs.
Ms. _____
First Last

_____
Street Address

_____ _____ _____
City State Zip

Phone#:
Day ( ) _____
Night ( ) _____

TO OBTAIN ANY OF OUR DIGITAL CAMERA ACCESSORIES YOU CAN DO ANY OF THE FOLLOWING:
VISIT YOUR LOCAL PANASONIC DEALER
OR
CALL PANASONIC'S ACCESSORY ORDER LINE AT 1-800-332-5368
[6 AM-6 PM M-F, PACIFIC TIME]
OR
MAIL THIS ORDER TO: PANASONIC SERVICE AND TECHNOLOGY COMPANY
ACCESSORY ORDER OFFICE
20421 84th Avenue South Kent, WA. 98032

In CANADA, please contact your local Dealer for more information about accessories.

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Limited Warranty
(ONLY FOR U.S.A. AND PUERTO RICO)

Panasonic Consumer Electronics Company,
Division of Panasonic Corporation of North America
One Panasonic Way, Secaucus, New Jersey 07094

Panasonic Digital Still Camera Products
Limited Warranty

Limited Warranty Coverage (For USA and Puerto Rico Only)
If your product does not work properly because of a defect in materials or workmanship, Panasonic Consumer Electronics Company (referred to as “the warrantor”) will, for the length of the period indicated on the chart below, which starts with the date of original purchase (“warranty period”), at its option either (a) repair your product with new or refurbished parts, (b) replace it with a new or a refurbished equivalent value product, or (c) refund your purchase price. The decision to repair, replace or refund will be made by the warrantor.

Product or Part Name	Parts	Labor
Digital Still Camera	1 year	1 year
CCD	6 months	90 days
SD Memory Cards, Rechargeable Battery Pack (defective exchange)	90 days	Not Applicable

During the “Labor” warranty period there will be no charge for labor. During the “Parts” warranty period, there will be no charge for parts. This Limited Warranty excludes both parts and labor for non-rechargeable batteries, antennas, and cosmetic parts (cabinet). This warranty only applies to products purchased and serviced in the United States or Puerto Rico. This warranty is extended only to the original purchaser of a new product which was not sold “as is”.

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Mail-In Service

For assistance in the U.S.A. and Puerto Rico in obtaining repairs, please ship the product prepaid to:

Panasonic Exchange Center
4900 George McVay Drive
Suite B
McAllen, TX 78503
panacare@us.panasonic.com

When shipping the unit, carefully pack, include all accessories, and send it prepaid, adequately insured and preferably in the original carton. If Lithium Ion batteries are shipped by air the package must be labeled “Contains Lithium Ion Battery (No lithium metal)”. Damaged batteries are prohibited from shipment by US Mail. Batteries must be securely packed in a manner to prevent short-circuiting and a package cannot contain more than 3 Lithium Ion batteries. Include a letter detailing the complaint, a return address and provide a daytime phone number where you can be reached. A valid registered receipt is required under the Limited Warranty.

IF REPAIR IS NEEDED DURING THE WARRANTY PERIOD, THE PURCHASER WILL BE REQUIRED TO FURNISH A SALES RECEIPT/PROOF OF PURCHASE INDICATING DATE OF PURCHASE, AMOUNT PAID AND PLACE OF PURCHASE. CUSTOMER WILL BE CHARGED FOR THE REPAIR OF ANY UNIT RECEIVED WITHOUT SUCH PROOF OF PURCHASE.

Limited Warranty Limits And Exclusions

This warranty ONLY COVERS failures due to defects in materials or workmanship, and DOES NOT COVER normal wear and tear or cosmetic damage. The warranty ALSO DOES NOT COVER damages which occurred in shipment, or failures which are caused by products not supplied by the warrantor, or failures which result from accidents, misuse, abuse, neglect, mishandling, misapplication, alteration, faulty installation, set-up adjustments, misadjustment of consumer controls, improper maintenance, power line surge, lightning damage, modification, introduction of sand, humidity or liquids, commercial use such as hotel, office, restaurant, or other business or rental use of the product, or service by anyone other than a Factory Service Center or other Authorized Servicer, or damage that is attributable to acts of God.

THERE ARE NO EXPRESS WARRANTIES EXCEPT AS LISTED UNDER “LIMITED WARRANTY COVERAGE”.
THE WARRANTOR IS NOT LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THIS PRODUCT, OR ARISING OUT OF ANY BREACH OF THIS WARRANTY.
(As examples, this excludes damages for lost time, travel to and from the servicer, loss of or damage to media or images, data or other memory or recorded content. The items listed are not exclusive, but for illustration only.)
ALL EXPRESS AND IMPLIED WARRANTIES, INCLUDING THE WARRANTY OF MERCHANTABILITY, ARE LIMITED TO THE PERIOD OF THE LIMITED WARRANTY.
Some states do not allow the exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the exclusions may not apply to you.
This warranty gives you specific legal rights and you may also have other rights which vary from state to state. If a problem with this product develops during or after the warranty period, you may contact your dealer or Service Center. If the problem is not handled to your satisfaction, then write to the warrantor's Consumer Affairs Department at the addresses listed for the warrantor.
PARTS AND SERVICE, WHICH ARE NOT COVERED BY THIS LIMITED WARRANTY, ARE YOUR RESPONSIBILITY.

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Customer Services Directory (United States and Puerto Rico)

Obtain Product Information and Operating Assistance; locate your nearest Dealer or Service Center; purchase Parts and Accessories; or make Customer Service and Literature requests by visiting our Web Site at:
http://www.panasonic.com/help
or, contact us via the web at:
http://www.panasonic.com/contactinfo
You may also contact us directly at:
1-800-211-PANA (7262)
Monday-Friday 9am-9pm, Saturday-Sunday 10am-7pm EST

For hearing or speech impaired TTY users, TTY: 1-877-833-8855

Accessory Purchases (United States and Puerto Rico)

Purchase Parts, Accessories and Instruction Books online for all Panasonic Products by visiting our Web Site at:
http://www.pstc.panasonic.com
Or, send your request by E-mail to:
npcparts@us.panasonic.com
You may also contact us directly at:
1-800-332-5368 (Phone) 1-800-237-9080 (Fax Only)
(Monday-Friday 9am-9pm EST)
Panasonic Service and Technology Company
20421 84th Avenue South, Kent, WA 98032
(We accept Visa, MasterCard, Discover Card, American Express, and Personal Checks)

For hearing or speech impaired TTY users, TTY: 1-866-605-1277

As of November 2009

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Useful Information (For Latin American Countries Only)

Customer Service

Customer Service Directory

Obtain product information and operative assistant; localize the closer distributor or Service Center; buy spare parts and accessories by our web site to Latin American:

http://www.lar.panasonic.com

Also you may contact us directly by our Contact Center:

Panama	**800-PANA (800-7262)**
Colombia	**01-8000-94PANA (01-8000-947262)**
Ecuador	**1800-PANASONIC (1800-726276)**
Costa Rica	**800-PANA737 (800-7262737)**
El Salvador	**800-PANA (800-7262)**
Guatemala	**1-801-811-PANA (1-801-811-7262)**
Chile	**800-390-602**
	From a cell phone: 797-5000
Venezuela	**800-PANA-800 (800-7262-800)**
Uruguay	**0-800-PANA (0-800-7262)**
Peru	**0800-00726**
Argentina	**0800-333-PANA (0800-333-7262)**
	0810-321-PANA (0810-321-7262)

Mexico Service

To obtain information in the Republic of Mexico contact us at:

email: atencion.clientes@mx.panasonic.com

Or you may contact us in the next following phones numbers:

01800-VIP-PANA (01800-847-7262) - Interior
(55) 5000-1200 - Mexico D.F. and Metropolitan Area

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For USA and Canada

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